



Impact of zero interest rate and digitalization on Frankfurter Sparkasse

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<p>Zero interest rate and digitalization are nowadays international terms. They have very controversial meanings in the banking industry, especially in the zone of the European Central Bank.</p> <p>This thesis investigates how a very typical German banking company named Frankfurter Sparkasse deals with the challenges of zero interest rate and digitalization.</p> <p>The theoretical background provides, besides an overview of the terms above, a lot of information about the German banking system and this exceptional case company, which belongs to the third pillar of it: savings banks. Branches are the centerpiece of this type of bank.</p> <p>The thesis is a qualitative study of how Frankfurter Sparkasse can maintain its traditional system of a branches bank in a time of zero interest and digitalization.</p> <p>The research process included collecting primary data from customers and employees of the bank via interviews and observation. The goal was to get a clear picture of how the two different groups are affected by the current situation. With secondary data, in particular, found on websites, in press releases and newspaper articles, and tertiary sources, such as annual reports and books, findings and conclusions were created as to what extent the branch system can be saved.</p> <p>In connection with these results, further studies analyse the current situation of Frankfurter Sparkasse through observations from outside the bank. The observations require empirical material from the bank's internal perspective: the opinions of a leading manager.</p> <p>In this way, the conclusions of the thesis are currently refined on how Frankfurter Sparkasse can maintain its branch system: more digital tools, new business ideas, adapting prices for services, adjusting the opening times, modernization and merger of branches.</p>	
Keywords Low-interest rate, Negative interest rate, Digitalization, German banking system, Savings bank, Branches bank	

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1 Introduction

The thesis provides an overview, how the German banking industry is facing nowadays several challenges, with a specific focus on a traditional savings bank with many branch offices.

The financial crisis of 2007/8 spread around the globe and hit the German banking industry in a severe way. This crisis brought a big change in monetary policy: the central banks created low-interest rates close to zero. The expected fast exit from these unorthodox policies did not come yet. On the contrary: in the Eurozone the European Central Bank (German: Europäische Zentralbank) keeps this monetary theory as normal, to be continued till the year 2030 is already expected. In this low growth market, the impact on bank profitability is very challenging, especially for smaller banks. An important fact is also, that German banks have to pay negative interest rates if they park money at European Central Bank (ECB).

With new technologies and digitalization, the banks are forced to reduce costs and must also reinvest in digitalization. This means another challenge for the traditional German savings bank system, which has many expensive branches and employees to keep direct contact with the clients.

1.1 Background

Germany is one of the leading countries in the world and very strong in the finance and stock market, also very powerful in export. The label 'MADE IN GERMANY' is still esteemed very much internationally. This "shows an elaborate survey from the globalization project of YouGov and the British Cambridge University. With this, Germany achieves 45 points in the analysis, thus making it number one in the worldwide buyer's favor" (SPIEGEL online 2019a).

In Europe, the Frankfurt Stock Exchange is placing number three after the Pan-European Euronext in Amsterdam and the London Stock Exchange Group. ECB and German Federal Bank (German: Deutsche Bundesbank) are also located in Frankfurt. The Federal Financial Supervisory Authority (German: Bundesanstalt für Finanzdienstleistungsaufsicht), abbreviation BaFin, has its field offices here as well.

As of June 2019 206 banks, including 38 domestic and 168 foreign banks, have their places of business in Frankfurt, plus 32 foreign representative offices. Approximately 64200 people work in these credit institutions. The share of bank employees amounts to 10,7 % of the total employment in the city. This is a high percentage compared with only 1,9 % in the country. (Bundesbank 2019)

Keywords of this thesis are Low-interest rate, Negative interest rate. This phenomenon creates still irritation nowadays, although not new. It is discussed in a controversial point of view, especially in Germany. A short look at the past seems necessary to understand it better.

Some background research will be given concerning the third keyword: digitalization. The author will point also to digital banking.

Frankfurter Sparkasse belongs to the traditional type of a German savings bank with many branches, which is recently unique in Europe. The author will explain the German banking system and its history.

1.1.1 Low-interest rate

After the financial earthquake, which erupted heavily in autumn of 2008, ECB became a crisis manager in the Eurozone. A stronger monetary policy was needed urgently. The stability of the banks was essential for the economy. ECB bought covered bonds and gave banks unlimited access to liquidity. The banks had to learn new regulatory and supervisory lessons.

The second phase of crisis happened in 2010 when the Greek state might default on the debts. Other countries like Ireland and Portugal, Spain and Italy in Southern Europe could follow. ECB started to buy government bonds. The Third Basel Accord (Basel III) was created to strengthen bank capital requirements by increasing bank liquidity and decreasing bank leverage. Since November 2011 Mario Draghi works as the President of the ECB. In the history of ECB, he will be remembered as the low-interest-president. Among many others he gave the following argument:

- The Council decided to reduce its key interest rates by another 25 basis points to 1%. In normal financial market conditions, a policy rate reduction is a potent instrument of inflation control and demand support. The rate cut works its way through a long chain of downward

adjustments in financial returns. At the end of the process, the yield on a large spectrum of securities declines and promotes broad-based policy accommodation. (Draghi 2011)

Recession and low growth defined the third phase of the crisis. In his famous speech, held in London 2012, Mario Draghi said: "Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough" (Draghi 2012).

Since 2013 the inflation in the euro area was too low. For price stability, an inflation rate close to two percent is wanted. ECB had to cut interest rates to almost zero twice, which meant after the former 0.75 percent a new low of 0.25 percent: shocking for the traditional saving attitude of clients, getting almost nothing for their deposits, but stimulating banks to borrow at very low rates. Banks could offer now attractive loans to companies and private households.

In 2014 the historical step happened that ECB set the deposit rate for banks to -0.1 percent, it broke through zero. The negative interest rate became reality for banks if they park money in ECB. This was considered by bankers as a penalty. Since 2015 ECB had bought a tremendous amount of public and private assets. The negative interest rate went worse to -0.4 percent in 2016. Till today this monetary policy gets many pros and cons.

Sabine Lautenschläger, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, pointed out:

- Well, obviously, inflation is still some way from our goal. But does that mean the ECB's policy has failed? No, of course not. The monetary policy never influences prices directly. The mechanism for transmitting a monetary policy impulse to the real economy, and driving a change in prices, involves many different steps.
- The first step is that low-interest rates, bond purchases, and other tools influence conditions in financial markets. They should make it easier for companies and people to borrow money. And that's what we have seen. Since 2014, lending rates for non-financial corporations and households have fallen a lot – by 119 and 100 basis points, respectively. And for small and medium-sized enterprises, they have even fallen further. That is important because these companies provide most of the jobs in the euro area. At the same time, lending rates in different countries have become less dispersed; the financial market has grown closer together again. So far, the measures taken have had the desired effect.
- The second step is that conditions in financial markets influence economic growth. Companies can invest more, people can buy more goods and services, more jobs are created, and the economy grows. And we have seen that as well. Growth has returned to the euro area, and so have jobs. We can look back on 17 quarters of economic growth and an unemployment rate that has fallen from around 12% to around 9%. Confidence is growing and demand is increasing. People in Europe have started spending again, and that supports recovery. And the recovery is not confined to a few countries; it has taken hold across the euro area. The third and final step is that stronger economic growth influences prices. As the economy comes closer to its full potential, production factors become scarcer. The supply of labour, for instance, begins to dry up. This boosts wages, which prompts companies to raise prices – and inflation returns. (ECB 2017)

At the other hand in its report on banks' earnings situation, the German Federal Bank states in a conclusion of business from 2018:

- Das mit den expansiv ausgerichteten geldpolitischen Maßnahmen einhergehende niedrige Zinsniveau und die flache Zinsstrukturkurve sowie der negative Zinssatz auf überschüssige Einlagen der Banken beim Eurosystem, der seit dem 16. März 2016 bei 0,4% liegt, reduzierten für sich genommen die Netto-Zinserträge der Banken... Die Groß- und Landesbanken sowie die Realkreditinstitute wiesen bei rückläufigen Bilanzsummen erneut spürbar gesunkene Zinsüberschüsse aus. Da dieser Rückgang nicht durch andere Nettoerträge aus dem operativen Geschäft ausgeglichen werden konnte, sanken die operativen Erträge in diesen Bankengruppen spürbar. (Bundesbank 2018)

Following is an English translation, published by KPMG, a leading advisory firm, who used this citation also:

- The low level of interest rates caused by the expansionary monetary policy measures and the flat yield curve, as well as the negative interest rate on banks' surplus deposits with Euro system, which has been at -0.4% since 16 March 2016, in themselves, reduced the net interest income of the banks... Major Banks, the Landesbanken as well as mortgage banks have again reported a noticeable decline in net interest income despite shrinking balance sheet totals. As this drop could not be offset by other net income from operating activities, operating income in these banking groups fell markedly. (KPMG 2019)

In January 2019 the 20th anniversary of the launch of the euro could be celebrated.

Voices of the German banks got louder to change the negative penalty rate. For example, even a member of the ECB Government Council suggested alterations. It was Olli Rehn from Finland's Bank Suomen Pankki, who wanted an interest rate in degrees, which would mean a certain free amount for banks for their deposit money. (Frankfurter Allgemeine 2019a)

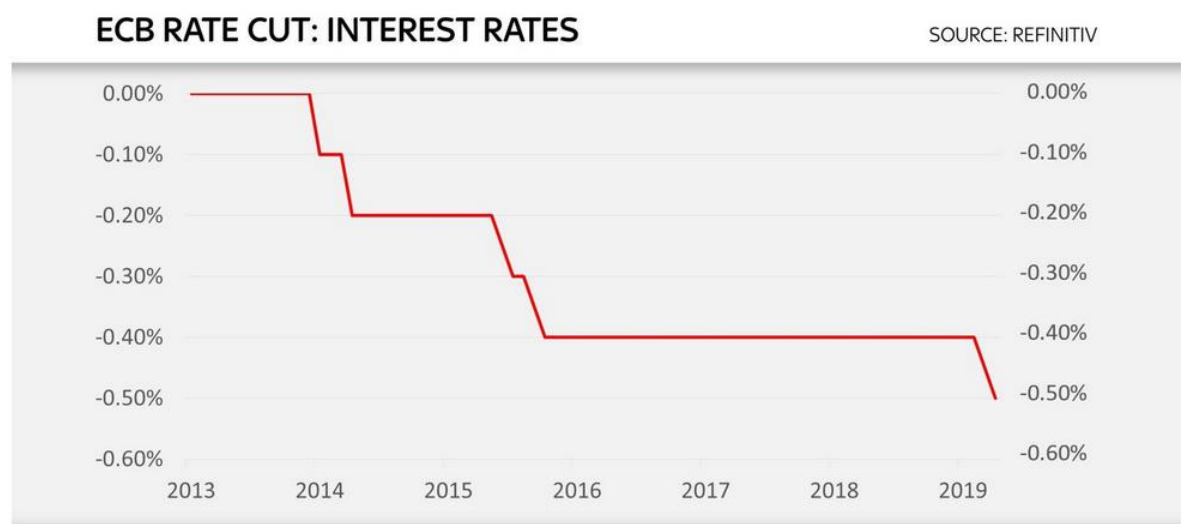
At the end of October 2019, Mario Draghi will step down as a president of ECB, followed by French Christine Lagarde on the 1st of November. However, it is much too simple to blame him for the actual interest rates or to hope that Mrs. Lagarde can change this easily and quickly. The German news magazine DER SPIEGEL (English: The Mirror), well known for its analytic view, showed in a recent interview some other interesting reasons for this complex subject. In this interview the former Vice President of the ECB, Portuguese Vitor Constâncio, explained freely his opinion about the German principle of 'schwarze Null' (English: black zero), meaning a balanced budget for the German government household:

- I don't think this attitude makes any economic sense. If the private sector wants to save much more than invest, three things may happen. First, there is a current account surplus. Second, interest rates get lower and lower and asset prices, including property prices, rise sharply. And third, the state can go into deficit to offset "excess" private savings (...).
- In such a situation, the state should expand its deficit and increase its investments as well as the supply of government bonds. This would also lead to higher interest rates and a lower current account surplus. Germany would thus be able to solve several problems at once. The very large current account surplus also leads to hostile reactions from other countries, especially from the United States. This entails the danger of retaliation against

Europe as a whole and Germany in particular. And this danger has risen recently. (SPIEGEL online 2019b)

During summer 2019 in the eurozone lower inflation forecasts were found out and even worse: slowing economies and rumors of recession. In a press conference on the 12th of September 2019, Mario Draghi defended the cut of deposit rates to an all-time low of -0,5% (table 1).

Table 1. Deposit rates (Sky News 2019)



A chart of the ECB's interest rate cuts, including September 12, 2019.

He understood it as a stimulus for the eurozone economy, in combination with ease for the banks and their deposits, as Olli Rehn had suggested earlier (s. page 3 of this thesis): graduation of their negative interest rates. Mr. Draghi announced also, that the ECB will buy bonds at a pace of € 20 milliards a month from November 2019 on. That meant the last big decision in his governorship and it will continue in the term of office of his successor.

This package had obviously some opponents in the Governing Council of the ECB. These voices were heard immediately one day after. Among other Jens Weidmann, president of the German Federal Bank criticized it as "overshot the mark" and Klaas Knot, president of the Dutch National Bank, pointed out "unequal to the actual economic conditions" (faz.net 2019).

Heavy dissension had happened recently in ECB, 10 of 25 members had objected to the new monetary policy, especially the renewed monetary transactions of buying bonds. Some days after the press conference the German member of the six members of the Executive Board submitted her resignation: Sabine Lautenschläger, whom the author had quoted earlier in this thesis. The leading German newspaper called the ECB "a Central Bank in dispute mode" (Frankfurter Allgemeine 2019b).

Former prominent ECB-members of four countries (Germany, France, Austria, and the Netherlands) criticized spitefully this ultraloose monetary policy in a memorandum, which was published in October 2019. The negative effects of this control appliance would become bigger, also the risks of a backstroke. They warned against serious social tensions because younger generations cannot provide for their old age money through safe interest-bearing investments. The prices of real estate businesses have increased in such a huge way, so they cannot afford loans for houses or flats neither, although lending rates are low. The bankers expressed their suspicion, that ECB protects the governments of the weak European countries, which are heavily in debt. The principal concern of the memorandum:

- The ECB's monetary policy is (...) based on a wrong diagnosis. The frequently used argument that the ECB would be violating its mandate with low inflation rates is simply inaccurate. The Maastricht Treaty enshrines this mandate, according to which the primary objective of the ECB is to maintain price stability. (...) From an economic point of view, the ECB has already entered the territory of monetary financing of government spending, which is strictly prohibited by the Treaty. (Frankfurter Allgemeine 2019c)

1.1.2 Digitalization

In modern society, digitalization can be understood as a revolution. After the Agricultural Revolution in the 18th century and the Industrial Revolution in the 19th century, the Digital Revolution started at the end of the 20th century and is still going on, recently in faster steps. It means generally the change from mechanical and analogue technology to digital electronics. This change was truly global and still modifies the today's society in all its fields.

The microprocessor prepared the development of computers in the 1970s. Mobile phones, digital cameras, and the World Wide Web followed in the 1980s. In the next decade, not only industry and business used the personal computer, but also schools and households. More advanced cell phones became popular in the 2000s. The information technology (IT) profits by this shift immensely: in the year 2005 more information was stored in digital than in analog format. Looking back this can be marked as the begin of the digital age. In the 2010s tablet computers and smartphones exceeded older tools. 3.9 billion people used the Internet already in 2016, this meant 49,5 percent of the world population. The growth is getting faster and faster (table 2).

Table 2. World internet usage (Internetworldstats 2019)

WORLD INTERNET USAGE AND POPULATION STATISTICS 2019 Mid-Year Estimates						
World Regions	Population (2019 Est.)	Population % of World	Internet Users 30 June 2019	Penetration Rate (% Pop.)	Growth 2000-2019	Internet World %
Africa	1,320,038,716	17.1 %	522,809,480	39.6 %	11,481 %	11.5 %
Asia	4,241,972,790	55.0 %	2,300,469,859	54.2 %	1,913 %	50.7 %
Europe	829,173,007	10.7 %	727,559,682	87.7 %	592 %	16.0 %
Latin America / Caribbean	658,345,826	8.5 %	453,702,292	68.9 %	2,411 %	10.0 %
Middle East	258,356,867	3.3 %	175,502,589	67.9 %	5,243 %	3.9 %
North America	366,496,802	4.7 %	327,568,628	89.4 %	203 %	7.2 %
Oceania / Australia	41,839,201	0.5 %	28,636,278	68.4 %	276 %	0.6 %
WORLD TOTAL	7,716,223,209	100.0 %	4,536,248,808	58.8 %	1,157 %	100.0 %

Digital banking and online banking are so often used in the same way, but there are significant differences between both. Online banking became the norm in the 1990s when simple banking services were served by the internet. It meant to use the account, deposit, and transfers online.

The early 2000s brought the rise of modern digital banking. The smartphones mentioned above became the preferred method for digital banking in the 2010s. A digital banking app saved now much time on transactions. Most of the smartphone owners in Europe use their app to get access to their online banking. Looking back to 2016 Pentti Hakkarainen,

Member of the Supervisory Board of the ECB, proved this in his speech about the digitalization of banking – supervisory implications:

- Across Europe, 59% of internet users now do their banking online, and this number is on the rise. Our expectations as online bank customers are high. We are used to getting user-friendly and round-the-clock service from our online providers – and we naturally expect banks to be able to keep up. (Hakkarainen 2018)

The ING International Survey Mobile Banking 2018 asked for more details, how people use their mobile devices to pay, for shopping and for banking (figure1).



Figure 1. How do you prefer to pay? (adapted from ING International Survey 2018)

The high expectations of digital banking draw conclusions: banks must improve services to satisfy customer's needs. Digital banking is not only about using traditional online banking, now all bank activities should be online and easy to access:

- Deposit, Withdraw and transfer money
- Investment and management of a portfolio
- Customer services and advice for investment
- Loans
- Bills paying
- Opening account/s
- Personal assistant with Artificial Intelligence (AI).

AI has the charm of novelty and is recently on the tip of many tongues. A simple definition of AI can be:

- Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions) and self-correction. Particular applications of AI include expert systems, speech recognition, and machine vision
- AI can be categorized as either weak or strong. Weak AI, also known as narrow AI, is an AI system that is designed and trained for a particular task. Virtual personal assistants, such as Apple's Siri, are a form of weak AI. Strong AI, also known as artificial general intelligence, is an AI system with generalized human cognitive abilities. When presented with an unfamiliar task, a strong AI system is able to find a solution without human intervention. (Techtarget 2018)

Apple's Siri has already a sister, named Erica. The Bank of America created her as a personal assistant tool. She shows, how fast the face of digital banking can be changed. The Bank of America mobile app is needed and the customer can talk, type or tap to the virtual assistant. "A whole new way to stay on top of your money. Erica is available 24/7 to help you with your everyday banking needs" (Bank of America 2019).

Concerning these rapid changes, Germany has been backward with the digitalization in banking according to many other countries in Europe.

1.1.3 German Banking System

The German banking structures at the present time were already created in the 19th century. Germany's banking system is unique, as it uses the 'three pillar banking system'.

This system contains in the first pillar private commercial banks. In the early 19th century private banks, often family-owned, dominated the German cities: for instance, M. A. Rothschild & Söhne in Frankfurt am Main. Big banks emerged in the late 19th century: Deutsche Bank (founded in 1870), Commerzbank (founded also in 1870) and Dresdner Bank (founded in 1872). These big banks were crucial in the industrialization of the country, they became house-banks of large companies and corporations. The triad developed a large branch network and served clients as universal banks in Germany and worldwide.

However, recent research shows that the 'big banks' have changed. The famous 'triad' belongs to the past. Commerzbank acquired Dresdner Bank; the fusion was completed in 2009. Postbank, till then a part of government-owned postal service, went public in 2004. In the southern state of Bavaria, the formerly powerful HypoVereinsbank (HVB) was acquired by the Italian banking group Unicredit. In addition to these 'big four' still, many small private banks exist B. Metzler seel. Sohn & Co (founded in 1674) might be a remarkable example in Frankfurt.

The second pillar belongs to credit cooperatives, small to midsize local banks, which emerged around 1850 in Germany. They had local roots and were created to fight financial exclusion. They have an institutional structure, organized like clubs with members, who might be also the main clients. The business model was quite simple: getting local deposits and lending to the small and medium enterprises and the households of the region. The cooperative banks have beside 'self-help' a democratic principle and are not really profit-oriented but support the business of their members. On the other hand, high risks are avoided. This structure helped this group to survive many challenges in the past 150 years. Examples are still today: Volksbanken and Raiffeisenbanken, operating since their foundation in the 19th century, a stylized 'V' as a logo. Another example, serving special clients like pharmacists and doctors, can be the Deutsche Apotheker- und Ärztebank (founded in 1902).

Most important for this thesis is the third pillar: the savings banks under the shield of state banks (Landesbanken), which means government involvement. The savings banks are independent small and mid-sized banks. They follow also a regional principle like the cooperative banks, which means they operate only in their city or region and do not compete against each other. However, the important next principle is of public utility: profits are invested in regional projects and sponsor social and cultural life of the citizens.

Early foundations in major cities can be seen already in the 18th century, the intention was to fight poverty and to help poor people with savings and interests. The great development happened in the 19th century: the idea of a municipal holder spread countrywide. The intention can be described now as supporting also the middle class and the economy of the region or city. The shareholders can be found still today in the name: Nassauische Sparkasse (NASPA) for a region or Frankfurter Sparkasse (FRASPA) for a city. Typical for the savings banks was and still is the great number of branches, although fading during the past years.

In the whole country, people can recognize them by their corporate identity in red and white colors and their logo: a stylized 'S' in shape of a moneybox with a coin. People are used to having a branch with this logo in the neighborhood of their work or home (figure 2).



Figure 2. Logo (FRASPA Home 2019)

The German state banks (Landesbanken) belong also to the third pillar. They are owned by the federal state or states, in which they are domiciled, and by the savings banks of this region. Their function is a kind of central bank for the savings banks. They can offer greater services, larger loans, international operations and can act as the main state bank. Competing with the large private banks they became susceptible to financial crises and merging with stronger ones was necessary. (Behr and Schmidt 2015)

Two opinions conclude this chapter. The first one has the point of view from the United States of America:

- Germany has a modern banking sector but is considered "over-banked," as evidenced by ongoing consolidation and low-profit margins. The country's so-called "three-pillar" banking system is made up of private commercial banks, cooperative banks, and the public banks (savings banks or Sparkassen, and the regional state-owned banks, or Landesbanken). German banks' profitability is increasingly under pressure given the very low-interest rates, high-cost structures and increasing compliance costs as a result of new regulation and supervision. Private banks control roughly 30% of the market, while publicly owned savings banks partially linked to state and local governments account for 50% of banking transactions,

and cooperative banks make up the balance. All three types of banks offer a full range of services to their customers. (Export.gov 2018).

The view of an insider is offered by Prof. Dr. Joachim Wuermeling, Member of the Executive Board of the Deutsche Bundesbank, in his speech at Bundesbank symposium:

- If I may say so as a Bundesbanker taking a bird's eye view, diversity – and thus the fierce competition – provides rich rewards for the economy as a whole, even if it is making life difficult for you. 'The three-pillar system has served the country pretty well,' is how 'The Economist' recently summarised Germany's situation. (Wuermeling, J. 2019)

1.2 Thesis topic

The intention of this thesis is to recognize and understand, how FRANKFURTER SPARKASSE (FRASPA) invests in digitalization, cuts costs and reduces the effecting system of the branches banks. These objectives directed the author to the research question (RQ):

RQ How FRANKFURTER SPARKASSE can maintain its traditional system of branches bank in time of zero interest and digitalization?

In answering this question, the following list of investigative questions (IQ) have been formulated:

IQ1 What kind of challenge do zero interest rate and digitalization bring to FRASPA?

IQ2 What is the future role of branch offices to customers and banks?

IQ3 What tasks can computer system take over? What does this have on the operations?

IQ4 How do zero or negative interests influence operations?

IQ5 What actions can be taken to ensure the system of branch offices to operate?

Table 3: Overlay Matrix

Investigative Questions	Theoretical Framework	Qualitative Research Methods	Results
IQ no. 1	What kind of challenge do zero interest rate and digitalization bring to FRASPA?	<ul style="list-style-type: none"> - Literature, Articles - Observation - Questionnaires 	20 items
IQ no. 2	What is the future role of branch offices to customers and banks?	<ul style="list-style-type: none"> - Literature, Articles - Observation - Questionnaires 	20 items
IQ no. 3	What tasks can computer system take over? What does this have on the operations?	<ul style="list-style-type: none"> - Literature, Articles - Observation - Questionnaires 	20 items
IQ no. 4	How do zero or negative interests influence operations?	<ul style="list-style-type: none"> - Literature, Articles - Observation - Questionnaires 	20 items
IQ no. 5	What actions can be taken to ensure the system of branch offices to operate?	<ul style="list-style-type: none"> - Literature, Articles - Observation - Questionnaires 	20 items

1.3 Demarcation

The case company is FRASPA. The thesis topic has as target group: 18 years till no end. The Business Department includes Finance, Marketing, Production, and Sales. The thesis direction of communication is the company to the customer versus customer to company. Author discipline shows a concept for keeping up a branches bank. FRASPA is in Frankfurt, State of Hesse, Germany, and Europe. The sector is the banking industry. The phenomenal aspect has must deal with facts and statistics versus perceptions, feelings, thoughts, and expectations of people. The author takes a qualitative research method and

a conceptual research type. Stakeholders are existing and potential customers, also management versus employees. The time includes an overlook of the past, present, and future.

Due to the author's copy deadline, the research of secondary sources ended on the 7th of December 2019, although the discussion of the keywords of this thesis goes on, especially the controversy about the latest negative interest rate.

1.4 International aspect

The author's topic is indeed very much in trend all over the European continent. However, has also important international aspects. Many international students are interested in that topic to plan their careers in Germany, especially in Frankfurt. The consequences of Brexit might bring Frankfurt into a leading role in the Eurozone. On the other hand, many German bank employees are worried about the changes and the effect for their positions. The field of specialization of the author is Financial Management. It is obvious, that the German banking industry is related to international business. Germany is finally a multi-culture orientated country. Banks have international customers from many different countries around the world. Thinking global is a strong need nowadays, even for a savings bank like FRASPA, located at the heart of Frankfurt.

1.5 Anticipated benefits

Company benefits:

invest in digitalization, cope and integrate with the actual changes, keeping branches to give best service, offering loans, insurances, new services, supporting clients directly and producing new products to attract more clients.

Employee benefits:

positive and safe feeling with these changes, because not losing their positions, but need to be flexible conquering new tasks.

Public relations benefits:

FRASPA is a non-profitable bank, it has been committed to social and cultural projects for many generations, therefore enlarging the positive image in the knowledge of the people.

Author benefits:

he can increase the network with FRASPA and HELABA, a preparation of a future career in these institutions.

1.6 Key concepts

Low interest rate:

“Fierce competition in Germany’s banking sector combined with slim margins have been a perennial topic for many years now – particularly given the low interest rates. And things are not going to change in a hurry” (Bundesbank 2019).

Negative interest rate:

- Credit institutions reported that the negative interest rate on the deposit facility had weighed visibly on their net interest income over the past six months. The only positive effects of the negative interest rate on lending volumes were seen by banks in the segment of loans to households for house purchase. (Bundesbank 2019)

Digitalization:

- Digital Bank tracks the innovations in banking and how the mobile internet is changing the dynamics of consumer and corporate relationships with their banks. The implication is that banks must become digitized, and that is a challenge as becoming a Digital Bank demands new services focused upon 21st-century technologies. (Skinner 2014, 3)

1.7 Risks and risk management

There is a variety of risks the author should pay attention to it.

For the author’s research many interviews would be very helpful: with clients, employees and the CEO. A commission agreement with FRASPA would make this easier. Meanwhile he got unfortunately a refusal from its personal management, because no time for support and accompanying. He tries it now at rising generation management of Helaba, the mother bank of FRASPA.

The risk remains in the moment, that the author does not get it there either.

In this case he will try to receive an official recommendation letter of FRASPA. If a denial happens, he will use the good connections in FRASPA to get partners for the interviews.

1.8 Case company

FRASPA, nowadays an institution of public law, has been founded 1822 in Frankfurt, as a daughter of Polytechnische Gesellschaft (English: Polytechnical Society), which was created in 1816 by 22 Frankfurt citizens (merchants, craftsmen, teachers, physicians, pharmacists, bankers) under the influence of the German age of rationalism. Still today it is an association to support progressive ideas in technical, economical, social und cultural fields. (Polytechnische 2019)

The foundation of `FRANKFURTER SPARKASSE von 1822´ should give people with low budgets the opportunity to save money in a secure way. After a merger with another local bank (Städtische Sparkasse Frankfurt am Main) in the 20th century Polytechnical Society participated in FRASPA with 60% and the city of Frankfurt with 40%. In the year 2005 FRASPA was changed by the owners into a joint-stock company and it was sold. (FRASPA Home 2019)

It is now part of a greater financial institution, called Helaba, the Landesbank Hessen-Thüringen Girozentrale, in meantime also operating in Northrhine-Westphalia and Brandenburg. Germany is a federal republic with 16 states. The states Hessen (English: Hesse) and Thüringen (English: Thuringia) are neighbour states. They have a long tradition together in German history and are situated in the middle of the country. The focus of the savings banks of Helaba is on the people, who live in these regions.

FRASPA belongs to the biggest savings banks of Helaba. Like the other savings banks it is a non-profitable bank and its profits go to support the local region, in this case the city of Frankfurt and its suburbs and the metropole-region `Rhein-Main´, named after the two rivers close to the city.

This supporting engagement is organized by a foundation:

- to promote public welfare
- in culture, social conditions, homeland and education
- circa 17,9 million Euros capital
- for projects, which the foundation organizes and in cooperation with FRASPA

This foundation works as a base for all the projects, FRASPA wants to support. The seven promotion fields are the following:

1. Arts
2. Music
3. Our Frankfurt
4. Reading and Writing
5. School and University
6. Sports
7. Environment

As a premium-partner FRASPA sponsors also the famous soccer-club of the city: Eintracht Frankfurt (English: Harmony Frankfurt), playing in important role in the German Federal and the European League. Soccer is very popular, so instead of the normal bank card, customers can order a bank card with the eagle-logo of Eintracht Frankfurt (figure 3).



Figure 3. Eaglecard (FRASPA Home 2019)

In addition to the simple bank card this one offers:

- identification with the local soccer club as a follower
- attractive design in the look of Eintracht Frankfurt (eagle-logo with 'E')
- raffle of exclusive business-seats in the arena, tickets for matches in Frankfurt, tri-cots with signature of the team players, inside arena tours and much more.

The statistics in the business report from 31.12.2018 show, that FRASPA gave work to 1.658 employees, 77 trainees included. It runs 76 branches and customer service centres, 21 self-service terminals and 121 cashpoints plus 79 automatic teller machines, also with pay-in-function. (FRASPA Geschäftsbericht 2018, 67)

FRASPA operates the biggest service network in and around Frankfurt. The branches are located from the city of Hofheim in the west to the city of Hanau in the east, also from the city of Friedrichsdorf in the north to the city of Sprendlingen in the south of Frankfurt. (FRASPA Geschäftsbericht 2018, 161)

The annual business report of FRASPA announced nearly 20 billion euros as a volume of business, this makes it the fourth largest savings bank in Germany (table 3).

Table 4. Annual business report (FRASPA Geschäftsbericht 2018, 2)

Die Frankfurter Sparkasse 2018 in Zahlen

	31.12.2018	31.12.2017	Veränderung	Veränderung
	Mio. EUR	Mio. EUR	Mio. EUR	%
Geschäftsvolumen	19.929,0	19.523,4	405,6	2,1
Bilanzsumme	19.067,0	18.670,4	396,6	2,1
Barreserve	163,6	299,6	-136,0	-45,4
Kundenkreditvolumen	8.368,2	8.151,0	217,2	2,7
Wertpapiere	5.163,5	5.070,7	92,8	1,8
Forderungen an Kreditinstitute	5.279,9	5.002,8	277,1	5,5
Anteilsbesitz	153,0	213,8	-60,8	-28,4
Sachanlagen	85,8	85,0	0,8	0,9
Kundengelder	16.635,2	16.307,4	327,8	2,0
Bankengelder	1.117,4	1.128,4	-11,0	-1,0
Eigenkapital	905,7	864,7	41,0	4,7

Differenzen rundungsbedingt

2 Different types and methods of researchs

The main themes will be concentrated on the importance of branches and the digitalization concerning FRASPA. The themes must consider the different groups of interviewees.

A link is also needed between the theory of the bank analysis in literature and the interview questions. Different types and methods of interviews are possible:

- In a structured interview, all questions and all possible answer alternatives are given beforehand.
- A half-structured theme interview differs from structured, because all questions are not given and there are no “readymade” answers. The interview is more like a discussion.
- A body of half structured theme interview to build “a general interview guide” or a list of important themes for yourself (or for an interviewer) to ensure that the same general areas of information are collected from each interviewee. Still, the theme list allows a degree of freedom and adaptability in getting the information from the interviewee.
- Certain relevant background information is asked every respondent: for example. personal information, like age, background education, position, place of living etc. Depending on the topic.
- The interview starts usually with “easy” questions like background information, some facts etc., and the difficult and “deeper” themes later. In the end, some probing questions about general feelings of an interviewee are good.
- The order of the themes must be carefully planned beforehand. The interviewer must be careful not to “frighten” the respondent with too tricky questions in the beginning. Also, the interviewer must not “steer” the respondent’s answers to a wanted direction. (Puustinen 2013)

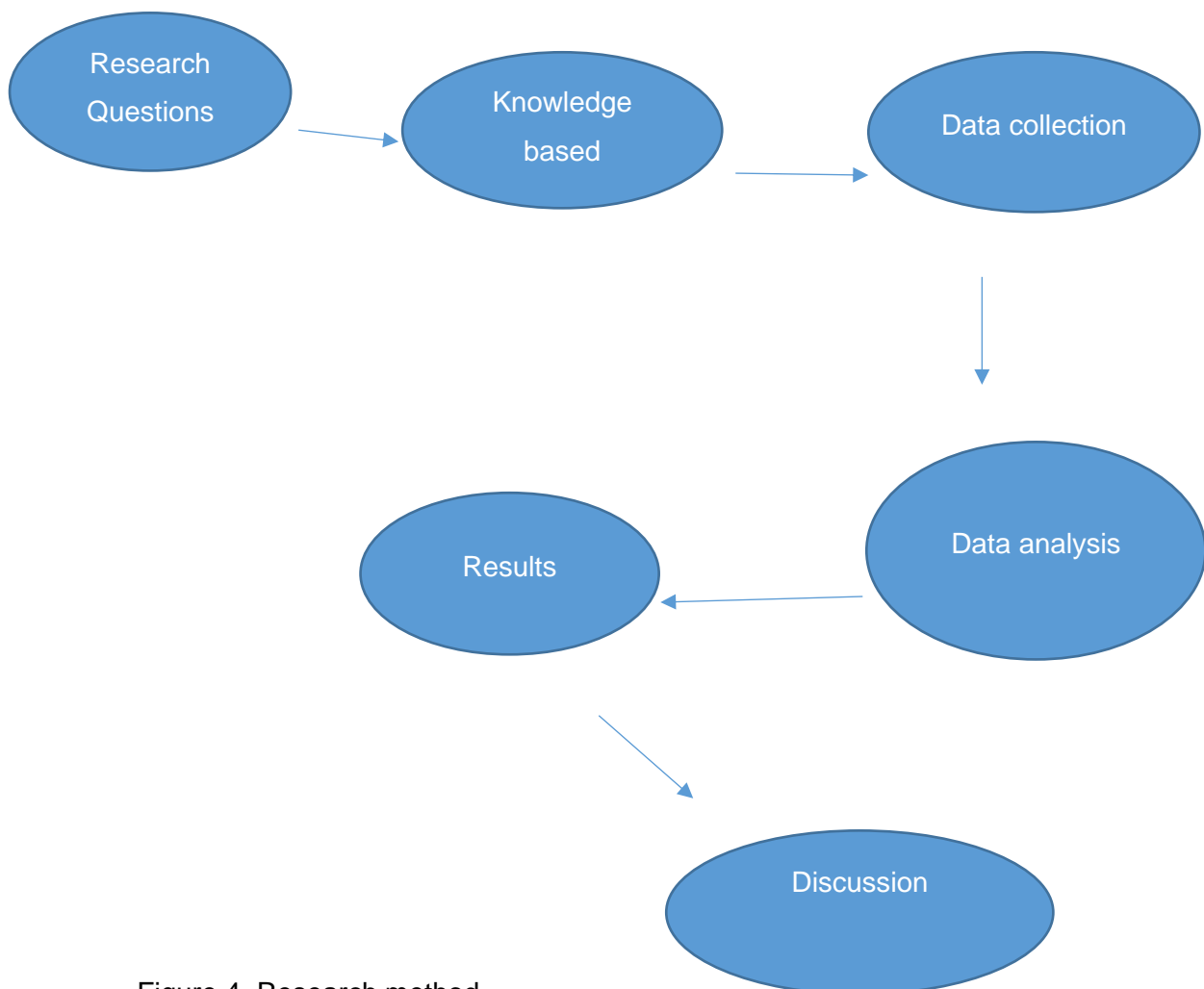


Figure 4. Research method

3 Research design

The research of the author rotates around the following key words: low interest rate, negative interest rate, digitalization, cutting costs, reducing branches, keeping old and attracting younger clients.

For this complex research he must achieve the following:

- Specify the problems of FRASPA precisely and choose a selection, because of the complexity of the topic.
- Read previously published literature in English AND German concerning the research question.
- Define clearly the investigative questions focal to the actual problem of FRASPA.
- Gather the data, which will be necessary for the topic, and describe, how such data have an evidence to the research.

3.1 Approach

Author's approach is going to be qualitative. The aim is to find answers, why the phenomenon of the topic is like this and what might make the actual situation of FRASPA better.

Qualitative research has more flexibility and questions can change during the study.

The author likes to establish a conventional thesis to gain all the information he needs. His language will not be an elaborate English, he prefers a simpler diction, because most of the German interviewees are not fluent in English.

Besides this his audience should be able to trust the topic and his research. Some of the interviewees will be later readers of his thesis.

3.2 Sort of Information

There are three types of sources:

- Primary sources such as observations, interviews.
- Secondary sources such as research articles, features, speeches, blogs.
- Tertiary sources such as disclosure reports, books, study guides.

3.3 From whom

Management of FRASPA, part of concern Helaba.

Employees of FRASPA, as they worry about digitalization, the impact on their positions and changing their work routine.

Clients, because different generations have different interests. Younger generations worry about the newest technology and want their bank cope with the digitalization of modern time. Elder generations are worried about using this technology and got used to go to their bank branches for advices, deposit books, withdrawal money.

3.4 Points of view

The points of view show the opinions and the feelings of the people involved in the topic. At the other hand the mood of narration is very important to let the audience hear and understand, what takes place in the research for the topic.

A very important point of view is also the author's relationship to the interviewees: known or unknown people. The interview questions are created by this point of view. Each question and point of views allow freedoms. The goal is selecting an individual point of view for each informant, this means telling it the right way, making the thesis understandable and believable.

3.5 Informants

It is highly recommended for a qualitative research, that it considers the multiple and differing aspects of the human behaviour. For comparison it is good to have a representative group of individuals belonging to different ages, races and classes of society, not to forget employee- and management groups. This might

provide the author with different views enriching the outcomes of his study.

Author would say at least 5 persons per group from each category informants, maximum could be 10 persons per group.

3.6 Motivation

The participants must be involved into the topic. Place, time and recording of face-to-face interviews and the group sessions must be planned carefully. The anonymity of the interviewees must be guaranteed. The author hopes to get small give-away items with the typical red logo from FRASPA to reward the participants from the different client groups.

3.7 Data Collection

The data collecting methods will be:

3.7.1 Observation

" Seeing is believing, they say. Making direct observations of simplistic phenomena can be a very quick and effective way of collecting data with minimal intrusion. Establishing the right mechanism for making the observation is all you need." (Blog.socialcops 2017)

3.7.2 Questionnaires

" Questionnaires, as we consider them here, are stand-alone instruments of data collection that will be administered to the sample subjects either through mail, phone or online. They have long been one of the most popular data collection techniques." (Blog.socialcops 2017)

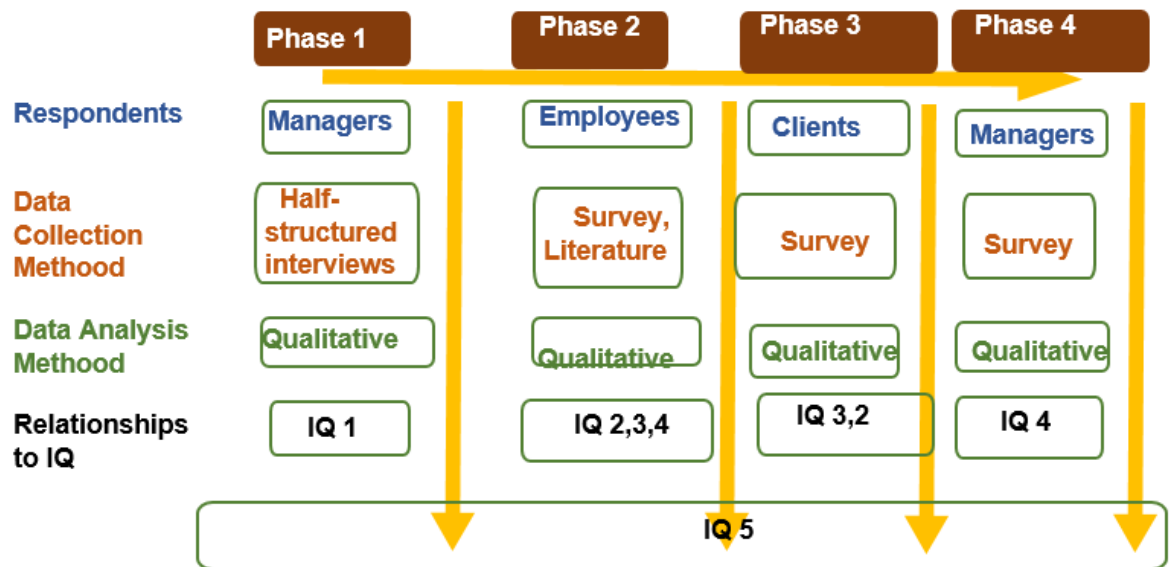
3.7.3 Interviews

" Conducting interviews can help you overcome most of the shortfalls of the previous two data collection techniques that we have discussed here by allowing you to build a deeper understanding of the thinking behind the respondents' answers." (Blog.socialcops 2017)

3.7.4 Focus Group Sessions

“Focus Group Sessions take the interactive benefits of an interview to the next level by bringing a carefully chosen group together for a moderated discussion on the subject of the survey.” (Blog.socialcops 2017)

Table 5. Research design plan



3.8 Interview design

The author decided to use the method of questionnaire to gather data from clients, managers and employees of FRASPA. For these questionnaires he created two online surveys, the first one for the customers, the second one for the bankers. Both were formulated in German and prepared carefully to get a satisfying reflux.

For the customer’s survey the author selected known people: men and women of different ages, races and circles of society. The survey was conducted via email. It contained an invitation to participate and a link for the online questions and the expected answers, which would be totally anonymous.

For the banker’s survey the author contacted a well-known manager in high position to get an acceptance for the questionnaire. During a meeting in the bank’s office, the survey

questions were presented by the author and were highly valued by the manager. However, he wanted that the board of directors granted a consent. When the permit was received, the author could send an invitation letter via email with the survey-link. This letter was forwarded by the manager himself with a strong recommendation to participate. He considered colleagues of all different business divisions of FRASPA.

3.8.1 Customer's survey

The investigative questions from above have been lightly modified for research on the actual customer behavior. The purpose was a better understanding by the client and precise answers in the fields of the questionnaire, a lessening of misunderstandings.

IQ1 What kind of challenge do zero interest rate and digitalization bring to FRASPA?

This IQ was divided into two single questions, because it includes two keywords:

- Wie beeinflussen Null- oder Negativzinsen Ihre Bankgeschäfte?
- Wie hat die Digitalisierung Ihr Bankverhalten verändert?

IQ3 What tasks can computer system take over? What does this have on the operations?

This IQ remained in the German translation, but with an accent on the client's need:

- Welche weiteren Aufgaben kann das Computer-System übernehmen? Was bedeutet das für Sie als Bankkunde?

IQ2 What is the future role of branch offices to customers and banks?

This IQ became accentuated only for the customer's purpose:

- Inwieweit brauchen Sie in Zukunft eine Bankfiliale?

IQ4 How do zero or negative interests influence operations? This IQ was already taken into question number one of the survey.

IQ5 What actions can be taken to ensure the system of branch offices to operate? This IQ was transformed totally to get the client's point of view:

- Für welche Transaktionen ist der Kontakt mit einem Bank-Mitarbeiter 'face-to-face' für Sie wichtig?

The English version of the five German questions above will follow in chapter 4.

3.8.2 Banker's survey

This second survey contained exactly the original IQs from the Overlay Matrix, now translated into German:

1. Welche Herausforderungen bringen Null-Zinsen und Digitalisierung für die Frankfurter Sparkasse?
2. Was ist die zukünftige Rolle der Filialen für die Kunden und die Bank?
3. Welche Aufgaben kann das Computer-System übernehmen? Was bedeutet das für den Betrieb der Bank?
4. Wie beeinflussen Null- oder Negativ-Zinsen das Geschäftsmodell?
5. Welche Aktionen können unternommen werden, um das System der Bank-Filialen für den Geschäftsbetrieb sicherzustellen?

In chapter 4 the author will use again the original versions in English.

3.9 Trust

Presenting the topic-title IMPACT OF ZERO INTEREST RATE AND DIGITALIZATION ON FRASPA to others, the author got very positive feedback: different people found it very interesting, absolute actual and worth to be read. He prefers qualitative research. The author's primary data collection will be based mainly on confidential interviews. The author will choose interviewees, who are really interested in his topic because they are worried about the actual situation. Their interviews will be recorded and documented carefully. All interviewees are left anonymous. As an exchange student, the author will have a distant and critical attitude to his work in Frankfurt/Germany, the author is not involved personally, and he has a researcher's position from abroad. For these reasons, the audience should trust his reliability and validity of decisions, steps, and conclusions.

4 Data analysis

This chapter discloses the information of the data collection of primary sources: reporting the results of two online surveys. It offers different points of view from two inhomogeneous groups: customers and bankers. At the end of every group sub-chapter, the author presents a summary. The last sub-chapter will compare the opinions and expectations of the two groups and will build a relationship between them.

4.1 Customers

The reflux was very satisfactory: 70 percent of the invited people sent their answers. The answers differed from simple words to long sentences and sections. They were partly very emotional and partly very detailed also.

4.1.1 How do zero or negative interests affect your banking business?

The variety of the answers went from “not at all” on the one hand to “bad influence” and “this policy is an effrontery, that breaks my business” on the other hand. Between these extreme positions, many answers could be found, which demonstrated, how customers try to find a way for themselves. The author presents the most interesting opinions in full quote:

- Still, I try to have a monthly surplus. This I don't consume, but I park it on an account, also without interests a nice little bank balance arises from the sum of surplus at the end of the year.
- I restack more and more credit from my day money and fixed deposit accounts into stock- and fund investments.
- To multiply or maintain my capital I don't invest anymore in banks. Otherwise zero or negative interest rates have no influence on my banking business.
- It will not affect my daily banking but will affect my saving, as we all love to save and to get some interest as kind of reward. That will affect, how not to keep my savings in bank and to find alternatives such as real estate or the stock market.
- I invested in real estate and bought land in Portugal, plans for building a house are in the town hall of Sesimbra, will need a loan for construction works there. I made a contract for a brand-new car with ultra-modern technology, will pay cash. My decision to afford a high-tech outdoor grill went easier. Still happy about my decision years ago to buy long term bonds of a Singapore Airlines plane, which distributes a good dividend each year.

The author gives a summary. The participants of this survey showed here in their answers, that these special keywords `zero or negative interests` connect with emotions. The survey made it obvious also, that the customers don't remain in the passive victim role of the monetary policy of the ECB. They search and find other ways for their banking business, even outside their house bank FRASPA and even outside Germany. The last citation demonstrates that in concrete details. It indicates also that the low-interest rates boost consumption, especially of expensive goods.

4.1.2 How has digitization changed your banking behavior?

Here the scale of answers varied between negative and positive opinions. Truly negative were 20 percent of the responses, for example:

"I have never made online banking and I will not change this".

"Not yet in the moment, but in the near future I will be probably forced to do my banking business online".

However, the great majority accepted the digital transformation in an approving way:

- Positive!
- For years I make almost exclusively online banking.
- It facilitates my banking business since my bank is 60 km away.
- Due to online-banking I barely enter the branches anymore.
- Totally! I make nearly all banking business at my laptop online. In the meantime, I also use my bank-app on my smartphone. I save much paper avoiding the print off extracts of my accounts. I save much time not driving anymore to bank branches.
- I used to go to the bank to withdraw money or to get advice about loans and stock markets. But now working on normal shifts I do not have the flexibility to visit banks. Nowadays I do all my banking stuff online (transfer, paying bills, buying and selling stocks or funds, even customer service).

The author summarizes: the replies reveal that most people use online banking and really like it. The great advantages appear obvious: easy, possible everywhere and anytime, saving materials and time and in the end costs. It is evident that the traditional branch system is not needed anymore for the normal banking business. Customers have changed their behaviour a lot during the last years. Only a small percentage of clients wants to continue in the old-fashioned way. Nevertheless, some of them recognize the power of the digital transformation and will adjust to it.

4.1.3 What other tasks can the computer system take over? What does that mean for you as a bank customer?

Some response fields remained empty or were filled with “none”, “don’t know”, “other tasks don’t come to mind” or “many”. Some customers still preferred the personal care and direct phone calls. The second group had concrete ideas:

- Asset management, lending business!
- Clear overview of ALL finances.
- For safety reasons, one has several accounts and depots. A reliable, protected platform for all investments could be advantageous.
- More answers or advices online around the clock, if I have a question or a problem when bank branches are closed. For example, by a virtual assistant. I would feel free from opening hours and independent of employees.
- However, for loans still, we have advices by person, and still, that person does the calculation on a system. Why that system is not already listed online for anyone to try and check the ability for loans? In other bank, I fill in the system format and then I get a call from the person, who is responsible for loans and says if my loan approved or not approved.
- Sparkasse system is a bit confusing such as transfers inside the EU or outside EU; persons must be aware of what they are going to choose. In other banks I do not need to choose anything, just enter IBAN number and suddenly system knows, where the money is going to. I have spent in one transaction over 2 hours while in my other bank it did not take 5 mins.

The author’s summary is as follows. The group that made imprecise answers or still favored personal contact, made out 50 percent of the survey. This can be interpreted, that these people are content with the current status of the FRASPA services: the actual computer programs and the branches on site. The other 50 percent wish more use of mobile banking and new ways of interacting online. It shows the digital awareness of customers, but also their need for reliability, safety, ease and time savings in the system.

4.1.4 To what extent do you need your bank branch in the future?

Here the pendulum of answers knocked out heavily, from “always” to “no” or “never”. The most interesting longer answers were:

- Always. A small talk at the cashier or consultation are not replaceable.

- I have great trust in my bank branch and my bank consultant. Because I know the people there and I like them, I will not switch to an online bank in the future. Sometimes I have problems with the online connection, in this case, I am happy, that human beings are on site to help me.
- A bank branch is essential for all business out of online banking. Without a branch in the neighborhood, I would change my bank.
- Consultation for finance and capital planning. Exchange currencies. Redeem checks.
- E. g. buy or sell foreign currency.
- Using ATM: getting cash or making a cash deposit. For the money changing of foreign countries.
- For months not at all!
- Why should I, if I get everything online?

The abstract shows: the future role of branches is very problematic for FRASPA. They still offer in the vicinity the direct contact between bankers and customers, which is also emotionally charged by some people. On the other hand, the important question remains, is it worth keeping them all in function, if the clients use them only for rare transactions like financial planning, currency and check a business or just advice. The great majority of the clients go online for daily bank business.

4.1.5 For which transactions a contact with a bank employee ‘face-to-face’ is important for you?

The last query brought again blatant countersigns. The answers fluctuated between “all” and “none” from one person each. More elaborate replies were the following ones:

- For a bigger contract. A few years ago, a loan agreement was completed, personal conversation with advice had gone ahead, since then no personal contact.
- For credit use! Changing assets of my portfolio!
- For opening a savings account or a loan. For capital accumulation benefits.
- For greater money transfer, for instance, greater than 5000 EUR.
- For all transactions, direct contact with a bank employee isn’t important for me. However, field consultation is very valuable.
- If I need guidance, but usually not at all.
- I do not think, it is really important for transaction face to face meetings.

The synopsis looks like this: these opinions demonstrate that there is still a need for the traditional role of the banker: for new or greater transactions, most of all lending. These transactions are more complicated for the average customer therefore he prefers personal consultation. However, this kind of banking business does not happen daily. Face to face meetings are negotiated quite rarely. Nevertheless, it is important for some people to know that their bank employee is reachable for advice by appointment. A tiny minority, 10 percent, wants this for all banking purposes.

4.2 Bankers

The results of this second survey offer a look at the other side of the coin. The author had captured obviously very actual problems. After the last interest rate decision of Mario Draghi and ECB in September employees and managers of FRASPA were willing to participate in the questionnaire. The linguistic style of the participants revealed different levels in the hierarchy of the bank. The answers went from simple expressions to fully work out a train of thought.

4.2.1 IQ1 What kind of challenge do zero interest rates and digitalization bring to FRASPA?

The breadth of responses started with a general “many”, some treated the keywords in a general way, some edited only one keyword and other continued to a more and more elaborate analysis of the current situation of FRASPA:

- Revenue sources are gone. Many customers do not come personally to the store.
- The business model as it currently exists, is no longer profitable and personnel costs must be reduced.
- Digitization costs money. The money can be earned through zero interest rates only awkwardly. Banks need to invest in their own IT and departments.
- Lower interest margins from investment to credit, customers shift their investments not only in securities but also on overnight money, despite zero interest rates. Some customers are also relocating their money abroad because there is something more there.
- The interest margin on the liabilities business has fallen significantly since the ECB's low-interest-rate policy. Digitization also leads to cost savings in the settlement but needs also the adjustments to the business model.

- Low margins in financing business, with higher competitive pressure. No maturity transformation. Digitization: Cost for introduction and implementation. Binds employee capacities.
- Due to the low-interest rates, banks no longer earn margins. Without margins, the profit (if any) is so minimal that cost reduction must begin. This must ultimately happen to the staff, as these fixed expenses are very high. The challenge is to set up the bank more actively with fewer staff in order to survive in the market. Digitization plays an important role here. Unfortunately, digitization is bound to a lot of regulatory issues, so it will not be easy to standardize things. Without a switch to the digitization and enormous cost savings, savings banks and Volksbanks will not be able to survive in the market for much longer.
- The de facto 'penalty' interest on deposits at the ECB reverses, what 'passive' savings banks, like us, have been earning for decades. These are not just broken away, we even pay more. One of the most important revenue pillars is lost for the time being, which is an elementary burden on our business model - because with its dense network of branches, savings banks and we also have the relatively greatest cost pressure.
- Digitization is also a very big challenge for us as a branch bank. We have to try to be digitally reachable (by all means) at the same time, and yet to promote our personal contact person on-site for our customers. The branch network is ultimately threatened by both, because under cost pressure (because of lower yields) and with fewer customers in our branches, the branch is menaced as a fundamental element - and thus the core business of savings banks. In the end, there could arise less on-site presence and thus less comfort for our customers. It also endangers jobs.

The author summarizes as follows. The internal look has a very pessimistic appearance concerning the traditional business model of FRASPA. Nothing will be as it was, due to the radical changes of low-interest rate and digitalization. The citations of the bankers' circle around the same tags:

- no margins due to zero interest rates
- no maturity transformation
- great digitization costs
- lots of regulatory issues
- competitive pressure
- personnel costs
- cost reduction
- branch network
- change of customer behavior
- the business model in doubt.

4.2.2 IQ2 What is the future role of branch offices to customers and banks?

A minority still had trust in the old role of branches, because of the personal advice there. However, the majority believed in more or less radical changes:

- Furthermore, direct contact. For people who like personal contact. Familiar business with trusted people.
- High-quality advice in a reputable location with confidential meeting rooms.
- A store is a place where customers can use digital services and also receive financial advice (from man and machine).
- The store is a touchpoint and will lose its importance for cash supply and retail advice in the future. It becomes more the reference point for the explanation of the new media, and the upscale advice is summarized in the Financial Center. Classic retail banking will increasingly decline.
- The service theme becomes less - the consultant's expertise continues to be needed by the client - the financial world gets more and more complicated, so our advice and recommendations are needed.
- In the future, all service topics should happen online and money should be collected at the machine so that no more service staff is needed. The smaller branches were to be closed down (tenant savings) and large flagships were created with a few client advisers and mostly specialist advisors. Because these employees are still needed: business is there to be explained, such as Construction Financing.
- For the Sparkasse, every branch always has to offer a concrete point of contact with customers and non-customers. Sometimes one speaks of the 'suction cup function', which has branches. Even new customers look for these places and then enter into new business relationships with us. Since the core business of the savings banks is the customer business, the branch is an elementary part of the business model, which I believe will remain so. The more pressure this creates, the more you endanger the very existence of savings banks. For customers, the branch is still often a popular point of contact for money transactions, be it cash or other services. Here our customer expects friendly, competent and as comprehensive as possible consultation and service. If these partially disappear, the customer dissatisfaction is produced by it.
- Modern bank branch: fast, easy and digital. From everywhere. Investment is just a mouse click away.

The author's interpretation of the above answers shows the possible trends for the future role of branch offices and its risks:

- traditional stores losing their importance
- smaller branches to be closed
- less classic retail banking
- fewer employees
- less rental charges
- financial centers or flagship stores instead

- with specialist consultants
- with support in complicated digital needs
- as a result of the change-over of digital behavior of the customer
- difficult to maintain the well-known FRASPA image as a branch bank.

4.2.3 IQ3 What tasks can computer systems take over? What does this have on the operations?

Here the answers started with single words like "virtual consultation" and were followed up by these more formulated ones:

- Artificial intelligence is being tested in various areas. For example, archiving documents. But also our first chatbot is in use recently. Inquiries from customers are automatically answered. For example the questions about opening times or contact addresses.
- Much can be automated. The number of employees in the company can be partially reduced thereby.
- Internally, more and more digitized, so fewer employees in the operation of a bank are needed. Tasks: seizures, overdrafts, etc.
- Without electronic data processing (EDP), nothing is going on in Sparkasse today. To set up the necessary EDP-supported processes always leaner and more efficient is also and especially against the background of the described situation of enormous importance! This is an ongoing and dynamic process, especially since digitization is progressing faster and further.
- The computer system can take over calculations. But due to the ever-increasing regulations and the ever-faster process changes, it is also necessary to operate the system in order to adapt these requirements to the system.
- Scoring and rating of customers. Analysis of payment transactions and investment behavior. Offers and processing of simple consumer loans, Credit cards, investment bots.
- The computer system will be able to take more and more tasks of the employees. The goal must be to make standardized processes in simple or always
- consistent topics such as opening account, death, settlement issues, etc. , which are mainly done by computer programs. For example, Fintech or robotics.
- The computer system can take over all services and consultations of a bank. The only question is how many customers want it. For the bank, this means investing in digitization and using the employees in such a targeted manner that they competently offer added value for customers and banks in the context of digitization. It automatically means job cuts. Many employees are also unable to cope with digitization due to their age structure. Also, 100 training sessions bring nothing.
- A quick comparison of possibilities: e.g. financing models under consideration of the credit rating. Interchangeability of institutions, only the price, and the performance count, not the best and suitable solution (off the shelf banking and not individual).

Summarized by the author: the above citations demonstrate a very realistic perspective of the processes caused by the computer system. The bankers realize the great importance and the enormous costs of it. Simultaneously they await problems with the staff of FRASPA: difficulties in the adaptation by the employees, hard risks of losing their jobs. Nevertheless more and more digital tasks are already in function or are expected for the operations soon:

- chatbot
- seizures
- overdrafts
- opening and closing of accounts
- calculations
- rating of customers
- analysis of customer's transactions and investments
- consumer loans
- credit cards
- investment bots.

4.2.4 IQ4 How do zero or negative interests influence operations?

In comparison to the answers of IQ 1 the replies here brought some repetitions, but also some concrete new facts:

- Long-term loans are becoming more important.
- As a result, hardly any money can be earned; closure of branches; fewer employees.
- It will disrupt the customer-bank relationship in a sustainable way, as banks will have to allocate the negative interest rates, fees will be increased and the performance will remain the same or decrease from the customer's point of view (fewer branches, fewer employees, more online).
- The business model needs to be adjusted. Income must be generated from other branches. Either the bank opens new business fields and / or it increases the prices for the financial services.
- As already described: the interest rate situation fundamentally threatens the business model of the savings banks, since the necessary cost savings can be found above all in the branch network.
- It affects us as mentioned above very much. A savings bank is a passive money house, and this is what we find extremely difficult in these times. We must stimulate the lending business in order to continue to exist because only there are margins still to earn and thus the salaries.

- New business models must be created to ensure earnings in the long term. The prices of goods rise, the lending rates fall. A business model is a connection of goods (car, travel, house building) and financing. The margin is increasing and customer loyalty as well.

The author analyses in summary: the pessimistic view on the current situation of FRASPA was kept up by the bankers because the business model is already disturbed in a sensitive way by the zero and negative rates. The big challenges for the operations especially include:

- new business models
- more active bank than passive bank
- boost of a lending business
- increase in fees
- allocation of negative interest rates on customers
- reduction of costs
- closure of bank branches
- dismissal of employees.

4.2.5 IQ5 What actions can be taken to ensure the system of branch offices to operate?

This question hit the mark of FRASPA, therefore the responses were again very comprehensive. They commenced with “consolidation” of branches and proceeded to more detailed ideas and concrete suggestions:

- Stronger ties to customers through a variety of products. Recommendations by existing customers. Overall, a relatively difficult question, because many factors are important here.
- Expansion of other products in addition to the classic deposit business, securities, insurances, lockers, etc.
- Linking of banking services (leasing) and goods (car). Create an adventure world bank (shopping mall and bank in one).
- The bank needs to become more of a partner of small business customers, to regain private customers over the trust. Only the more complex advice from customers will be required in the future. The small-scale business must become cheaper and be imaged via digitization.
- The superior advice is the only option.
- Up-to-date banking advice via Skype; video counseling; longer opening hours; provision of parking spaces; central bank branches that everyone can reach.

- Shrink store network and merge small branches in a larger location. Forming symbioses: sharing business premises and individual business areas with other financial service providers/companies, e.g. joint call center, joint compliance department, etc.! Regulations are the same for all banks anyway. Mergers with other banks.
- We need to become more efficient (IT-supported, what do we need, what can we do without), our service breadth and depth always aligned under the business view of the need (what do customers even ask and do we earn money with it), more meaningful line-up (not every competence has to be offered everywhere > concentration of topics and also more efficient design of the branch network > we do not have to have a branch every 100 meters), increase income from alternative topics and still stay close to the customer. Our service must convince and inspire customers, as our local people. In my view, however, the willingness within the savings banks camp (and especially in politics) must increase massively to enhance mergers and cooperation significantly in order to use synergies.
- Fewer small branches, but more major branches equipped with special advisers. Branches continue to be important as customers continue to seek advice, at least in specialist areas. Although customers are already getting more and more information from the internet, about 76% (Check 24, etc.), but only four of those make it via the internet. You can see that when it comes to money, trust online is not given that way yet. We as a savings bank must maintain the branch operation in any case (even if not in the current order of magnitude) to continue having enough unique selling points. Because everyone can standard, but to deal with the problems the big banks do not offer.
- The DNA of a savings bank will continue to be the presence on site. Ultimately, customers vote on it with their frequency. Personal advice will continue to be in demand.

It is obvious to the author that the local branch represents the focal point of the FRASPA business. In it, all bankers agree. In the last citation, it was called even the 'DNA' of the savings bank system. All participants of the survey consent that it will be a very difficult task to preserve this core of FRASPA. To ensure the system of branch offices to operate the bankers created the following scenario:

- intensification of customer loyalty
- expansion of new and diverse products
- increase of digital tools
- reinforcement of customer trust in digitalization
- better efficiency in all areas
- reduction of the branch network
- less small and greater stores or counseling centers
- locations that anyone can reach
- good parking conditions
- comfortable opening hours
- more well-trained special advisers
- collaboration with other financial service providers
- fusions with other banks
- more support from politics.

4.3 Comparison between customer's and banker's survey

Both groups were interviewed with detailed questions about the same phenomena. The phenomena correspond to the keywords of this thesis: low respectively negative interest rates, digitalization, German banking system using the example of a savings bank with many branches. Customers and bank employees look at these terms from different angles.

The emotions boiled the most in the subject of the low-interest rate environment. The typical German saving mentality of the customers is hit here sensitively. Rethinking and changing habits are always difficult, the author himself knows. But he was able to find that customers do not remain in the victim role despite disappointment but search creatively for other opportunities for their banking business, under circumstances also outside of their house bank FRASPA.

Bankers feel the consequences of zero interest much more threatening and fear the ruination of the business model of FRASPA. The previous passive banking business no longer works under these circumstances. On the one hand low profits or even penalty interest, on the other hand, high costs for the banking enterprise. They see the constraints of cost savings that can begin with the staff. That's why the fear of job loss is noticeable in the answers.

All this becomes even more complicated by the ongoing wave of digitization. As a result, customer behavior has increasingly changed and will do even more. Although there is still a tiny minority that is banning it, most customers say yes to it because it gives them so much advantage. Half of the respondents want even more digital applications while simplifying the steps and improving security standards. The old cliché of the German digital muffle has not come true.

Bank employees very realistically see these changes in customer behavior as a result of digitization. However, they also see the high costs of the digitization programs, above all because of the regulations. Nonetheless, they also recognize many other digital applications soon, even if they overwhelm them or will cost jobs. The computerization cannot be stopped. Of course, thanks to their in-house perspective, the bankers see much more computing possibilities than the customer. Because of that, they are afraid of their traditional business model. Some expect radical changes within their bank because of the immeasurable potential of digitization.

On one point, customers and bankers met in perfect terms: the desire for a virtual assistant was fulfilled during this survey by installing Linda, the brand-new chatbot of FRASPA. In this text-based dialog system, Linda will answer questions about products and services around the clock.

According to the online banking of customers, the question arises as to the future function of the bank branch. It is reassuring for clients to have them close by if they have specific concerns beyond normal banking. But that does not happen every day, sometimes only once for many months or a whole year. But you should not forget the type of customer who visits the branch because of the nice contacts with the employees, less day-to-day business than conversation.

Customers are used to having their bank branch easily accessible and do not think about rent and staff costs. These costs are seen by the bankers and they are already predicting the inevitable reduction of traditional business premises. Because the mentioned customer behavior is like a vote with the feet, not all branches can be obtained.

Customers still want experienced specialists for their particular concerns. In their eyes, these are more complicated actions for which they need advice, vis-à-vis with the bank advisor. The opinions of bankers go in the same direction: they are indispensable for high-level consultations and decisions of greater scope. But the question remains if every branch can offer that because that does not happen very often. The answer could not be found among the customers, but with the bankers: they recognize the need to downsize the store network. The change is going in favor of larger advice centers. These should be very customer-friendly and be able to offer new products.

In this way, the bank branch can remain at the heart of FRASPA. However, this restructuring will cost the bank a lot of money, which can not only be achieved through savings on the other side. Therefore, FRASPA needs very loyal customers who participate and political support.

In the opinion of the author stays: the third pillar of the German banking system is to be preserved because savings banks are shaping the image of the nation. It is important that the branches of FRASPA in the city of Frankfurt and the region will remain, albeit in a different form. This is a big challenge for the immediate future, which of course bankers see more clearly than customers.

5 Conclusion

The conclusion leads back to the research question from Chapter 1.2 Thesis topic:

RQ How FRANKFURTER SPARKASSE can maintain its traditional system of branches bank in time of zero interest and digitalization?

After the two surveys and further observations by the author, the answer becomes clear. It is not possible to maintain the branch system just as it has been in the past. The bank branch is indeed the heart of the business model of FRASPA, but several factors force clients and banks to rethink. Zero-interest rate policy brings low or no profits or even losses in traditional business. Customer behavior has changed in favor of digital applications. Therefore, the digitization with its high costs is to be continued, FRASPA must invest there. At the same time, new business ideas must be propagated and implemented, but these do not grab so fast and become immediately profitable. In any case, FRASPA needs to improve its cost situation. In order to reduce the immense costs of the branch network, this must be changed strongly.

The traditional bank branches must be gradually converted into advisory centers. Nevertheless, it is wrong to close hastily branches. The store is an integral part of the customer's relationship with FRASPA. Therefore, branch closures must be checked very carefully and prepared very well. It is important to avoid losing customers if their bank base branch changes. FRASPA must first carefully analyze which customers are to be found at which contact points. Targeted customer information about the changes is significant. Reducing the opening hours can be the first step, then merging smaller branches as the next step. Existing consulting centers should become even more attractive and new ones must be planned at strategically important locations.

6 Further studies

To end this thesis with a timely outlook, the author still studied the current appearance of FRASPA from November till the beginning of December 2019. He observed the presence in social media, the activities on the website and the advertising in some branches.

On Facebook, FRASPA is very active with various contributions. The funniest are the posts and stories with the little red piggy bank, the mascot of FRASPA. They are often associated with a price puzzle, currently with the advent calendar and its prizes. 25690 users like this. (Frankfurter Sparkasse 3 December 2019)

On Instagram, FRASPA has posted nearly 1300 appealing pictures and has over 2000 followers. (fraspas1822 3 December 2019)

The Twitter page is currently not maintained, instead, there is a note on the Facebook page.

At the beginning of every month, a newsletter is sent to the listed customers, by email. The November issue has advertised the bonus world for account and credit cardholders: Cashback and shopping benefits, paydirekt - the free online payment method, FRASPA App, Electronic safe and multi banking function. There was also advertising for the Picture Card, the credit card with the desired design. In addition, information followed about PSD2, a new Payment Services Directive designed to make online banking and credit card payments safer. Each issue offers at the end the property of the month and a link to the real estate newspaper.

The website of FRASPA has since the summer of 2019 a nicer appearance. With changing initial pages, it was advertised there for insurances online, Kwitt for quick and secure money transfer from smartphone to smartphone and a diverse selection of retirement products. Attractive new online products are shown: ImmoTrumpf (English: Real Estate Trump) and S-ImmoPreisfinder (English: S-Real Estate Price Finder).

With the ImmoTrumpf of FRASPA, the customer knows how much property he can and wants to afford before the first inspection visit. This will give him a quicker contract for the dream property. In addition, with the S-ImmoPreisfinder he can find out what a property is worth - his own or the property he is interested in.

The homepage of FRASPA introduced new, innovative and digital services. For example, the upcoming mobile payment with Apple Pay, customer questions answered by Linda, the virtual assistant, or finding a bank adviser or bank accountant who really suits the customer.

An own internet site was created for this ideal bank consultant, called friends in banks - find the bank adviser that suits you. In ten steps you can find online the FRASPA employee that best matches you and has the same principles. There was at times an action with advertising this on the fuel nozzles of petrol stations, very noticeable for all drivers of cars. (friends in banks 2019)

The front page of the website advertises in December 2019: Privatkonto Komfort Plus, the checking account with the extra service and benefits. Especially for the Christmas season is offered: Schenken ist einfach (English: Giving is easy), which means finding the gifts quickly and easily by Ticket Service, Bullion gift cards and Refund at over 1000 online shops.

The big shop windows of the branches have changing actions with large-format posters, some of them rotating. These are well designed and eye-catching. The topics change from time to time and mostly correspond to the topics of the homepage. Besides that, the author has noticed a promotion for investment forms with sustainability, attractive to customers with environmental awareness. Last seen were advertisements for the financing of car leasing, investments for the old-age provision and a new product, which offers 1,65 % value development per year at a term of eight years. The current real estate offers take a large space as well.

7 Outlook

The recent observation brought the author a look at the situation of FRASPA from the outside only. What has caused all the compulsions to save costs, the actions and innovations mentioned, will be in the annual report of FRASPA not until the next year. Therefore, the author asked the head of a financial center of FRASPA by email to formulate some thoughts on the current implementation. While preserving his anonymity, the author was given the right to quote.

Concerning the restructure of the presence in the area the leading manager wrote:

- We have a branch moved from the core of a district to a large shopping center. We must be where the people are and by that motto, we promise greater presence, awareness and growth opportunities. The opening times were changed accordingly so that we are also longer - oriented to the opening hours of the center - for the people to be found in a person.

The reduction of the branch network is already underway:

- We have individual, barely frequented locations, where further branches are to be found in the immediate vicinity, closed. On the one hand, we want our customers to have a local branch and to remain reachable, on the other hand, of course, we must systematically scrutinize business sense.

The changes in the opening times already bring positive results:

- We have adapted our opening times at different locations, among others at one of my locations. It must be noted that our customers have been channeling to our new (halved) opening times since then, which means the customer visits, which are usually distributed on 5 days a week, we have now in the 2.5 days open. The efficiency of our presence has thus increased considerably - and we remain on-site for our customers, for which we also have a social obligation. Incidentally, a second long opening day was introduced so that our working clients can now come to our office on Mondays and Thursdays until 6 pm. In addition, consultations are always possible beyond our opening hours.

Further adjustments and modernizations describes the leader as follows:

- The service and service processes in our branches will be adjusted and modernized, as well as our visual appearance. For the barely affordable cash management, we are introducing stronger automation in some locations (which have been adapted to other locations for years), without losing any personal presence (we continue to be there for our customers). At the same time, we are increasing our consulting presence so that we can hopefully have even more local expertise for our customers. At the same time, we can save a considerable amount of money by reducing the number of control tasks in cash transactions.

Regarding the many new digital tools of FRASPA here is the appropriate quote:

“We are clearly facing the digitization trend and are breaking new ground in many areas, thus increasing our presence and accessibility in and beyond the network and beyond our opening hours”.

It follows a citation to strengthen customer loyalty and win new ones when clients are brokered for mortgage lending, account or deposit opening:

“We work with referral bonuses and also try to link our advertising presence more closely with specific sales promotions in order to be attractive to existing and new customers and to grow as much as possible”.

The real estate trump already described by the author is also an important mention:

- With the real estate trump, we offer a unique opportunity in the industry, to concretely certify our customers before acquiring a property, to what extent we are ready with financing - as soon as he has found his dream home. The certificate our customer can show for example at the broker so that he has in the currently challenging real estate market significantly

better chances to receive the contract for the property. A customer advantage of almost invaluable value, which should allow us access to further financing business and, of course, new customers.

The banker does not forget the sensitive subject of the charges:

“Last but not least, we are structurally adapting prices for our services, but always with foresight and in comparison with the competition. After all, we want to win customers and not allow ourselves to lose customers”.

The head of the finance center closes with some general thoughts:

- These topics are representative of many other activities that we are currently pushing ahead to be well prepared for the future. In part, these are also tangible already, which encourages us to continue diligently. However, a lot will depend on whether and when the interest rate situation for us as a savings bank changes again and thus could possibly remove some pressure on the earnings side. But here I am pessimistic, as well as many experts.

The author can only agree with the last sentence. But he sees also that FRASPA is well on its way in these difficult times of zero interest rates and digitalization. It's a difficult road because it's constantly battling for clients and consolidating the bank. Furthermore, the author hopes that this traditional institution will be able to celebrate its 200th birthday in the year 2022 in good shape.

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